

# Coaxial Directional Coupler

50Ω

0.1 to 2000 MHz

## ZFDC-20-5



BNC version shown  
CASE STYLE: K18

### Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C

### Coaxial Connections

INPUT	3
OUTPUT	1
COUPLED	2

### Features

- very wideband, 0.1 to 2000 MHz
- excellent directivity, 27 dB typ.
- excellent insertion loss, 0.7 dB typ.
- rugged shielded case

### Applications

- cellular
- instrumentation
- communication receivers & transmitters

Connectors	Model	Price	Qty.
BNC	ZFDC-20-5	\$84.95	(1-9)
SMA	ZFDC-20-5-S	\$89.95	(1-9)
N-TYPE	ZFDC-20-5-N	\$89.95	(1-9)
BRACKET (OPTION "B")		\$2.50	(1+)

### Directional Coupler Electrical Specifications

FREQ. RANGE (MHz)	COUPLING (dB)		MAINLINE LOSS <sup>1</sup>						DIRECTIVITY (dB)						VSWR (:1)	POWER INPUT (W)		
	Nom.	Flatness	L		M		U		L		M		U			Typ.	L	MU
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.				
0.1-2000	19.5±0.5	±0.5	0.3	1.0	0.7	1.4	1.5	2.3	30	20	27	20	22	10	1.2	0.5	2.0	

L = low range [ $f_L$  to  $10 f_L$ ] M = mid range [ $10 f_L$  to  $f_U/2$ ] U = upper range [ $f_U/2$  to  $f_U$ ]

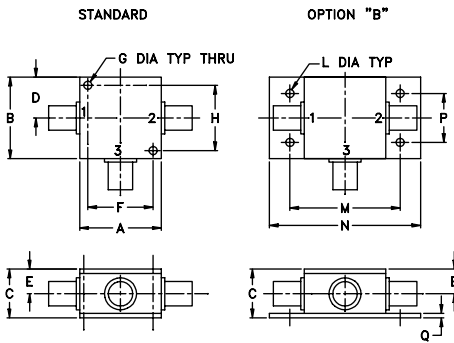
1. Mainline loss includes theoretical power loss at coupled port.

Above 1000 MHz, coupling flatness ±1 dB.

### Typical Performance Data

Frequency (MHz)	Mainline Loss (dB) In-Out	Coupling (dB) In-Cpl	Directivity (dB)	Return Loss (dB)		
				In	Out	Cpl
0.10	0.71	19.79	25.09	11.79	11.84	12.78
0.50	0.49	19.57	33.79	21.84	22.89	21.74
0.90	0.44	19.52	34.79	23.69	25.23	23.40
188.00	0.36	19.46	32.56	26.83	27.83	26.54
544.00	0.69	19.85	30.03	22.02	22.00	23.17
920.00	1.07	20.18	28.13	19.60	20.58	18.75
1020.00	1.17	20.18	28.46	19.23	20.30	17.73
1136.00	1.28	20.13	29.48	18.96	20.07	16.64
1310.00	1.41	19.96	34.06	18.82	19.75	15.02
2000.00	1.91	19.34	18.40	18.91	17.73	10.05

### Outline Drawing

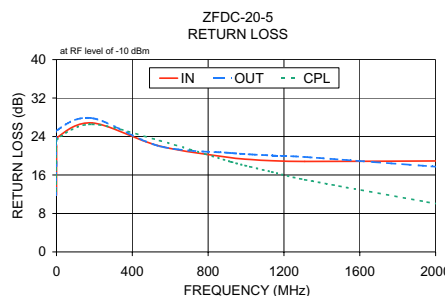
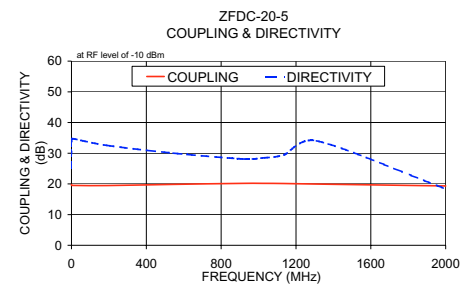
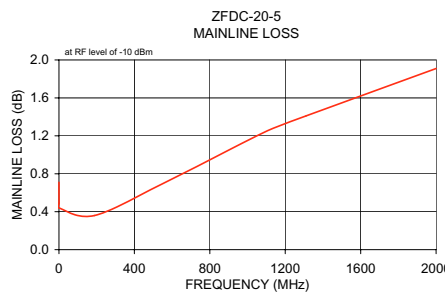


### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.00	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40

J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.75	.07	grams
--	--	3.18	42.88	55.37	19.05	1.78	70.0



### electrical schematic

